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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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TROP PRUNER &-HU, PC 8554 KATY FREEWAY SUITE 100 HOUSTON, TX 77024			RYMAN, DANIEL J	
			ART UNIT	PAPER NUMBER
			2665	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/775,238

Applicant(s)

MACLEAN, IAN B.

Examiner

Daniel J. Ryman

Art Unit

2665

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-28 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 3-28 is/are rejected.
7) ☒ Claim(s) 5 is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/2/2005.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 3, 9-11, 18-22, and 24 have been considered but are moot in view of the new ground(s) of rejection.
2. The indicated allowability of claims 7, 8, 12, 16, 17, and 20 is withdrawn in view of the newly discovered reference(s) to Rao (USPN 6,535,511), Leung (USPN 6,195,705), and Chuah (USPN 6,839,339). Rejections based on the newly cited reference(s) follow.

Claim Objections

3. Claim 5 is objected to because of the following informalities: in line 9 "Serving" should be "Gateway" since the SGSN cannot receive the packet from itself (cf. claim 14). Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 7 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Inoue et al. (USPN 6,515,974).
6. Regarding claim 7, Inoue discloses a method of communications between first and second wireless networks, comprising: receiving data containing a private network address of a first node in the first wireless network (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16);

Art Unit: 2665

translating the private network address to a public network address (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16); sending data containing the public network address translated from the private network address to a second node in the second wireless network (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16); and determining whether to establish a data session (determine translation information for a data session and then pass a translated packet to the appropriate network) on a packet data network on behalf of a roaming mobile station through the first wireless network or the second wireless network (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16) where when the relay receives a packet for which it does not have address information, the relay will determine the translation information and then pass the packet to the appropriate network after having translated the packet (col. 11, line 58-col. 12, line 22).

7. Regarding claim 8, Inoue discloses that the receiving, translating, and sending acts are performed by a network element between the first and second wireless networks (Inoue: Figs. 2 and 3 and col. 9, line 35-col. 10, line 16).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3, 9-12, 17-22, 24, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (USPN 6,515,974) in view of Rao (USPN 6,535,511).

10. Regarding claims 3, 9-11, 18, 19, and 24, Inoue discloses a method of communications between first and second wireless networks, comprising receiving a data packet having a header

Art Unit: 2665

and a payload portion, the packet containing a private network address of a first node in the first wireless network (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16) where it is implicit that the IP packet will have a header and a payload portion; translating, by a network address translator, the private network address in the header to a public network address (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16); and sending a data packet containing the public network address translated from the private network address to a second node in the second wireless network (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16).

Inoue does not expressly disclose that the payload portion contains the private network address or translating the private network address in each of the header and payload portion to a public network address. Rao teaches, in a packet communication system using network address translation (NAT), that “some applications embed addressing information in their message payload data” in order to “initialize or set up a communication session with another application” where “[t]his embedded addressing information is also to be translated when the packet is crossing a boundary” (col. 1, lines 45-48 and col. 4, lines 1-6). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have a private network address in the payload portion and to translate the private network address in each of the header and payload portion to a public network address in order to permit communication between applications existing in disparate addressing systems.

11. Regarding claims 12, 27, and 28, Inoue in view of Rao discloses that translating the private network address in the payload portion of the data packet is performed by identifying a string in the payload portion containing the private network address (Rao: col. 4, lines 9-19 and col. 4, lines 60-67).

Art Unit: 2665

12. Regarding claims 17 and 20, Inoue in view of Rao discloses that the first wireless network is associated with a first network operator and the second wireless network is associated with a second network operator (Inoue: col. 3, lines 1-15 and col. 4, lines 29-37) where the private address space is operated by a large organization that uses a different addressing configuration than the public internet or another large organization.

13. Regarding claim 21, Inoue in view of Rao discloses that the interface is adapted to receive the data packet comprising an Internet Protocol packet (Inoue: col. 9, lines 35-38 and col. 10, lines 6-16).

14. Regarding claim 22, Inoue in view of Rao discloses a controller adapted to send the data packet containing the second network address to a second wireless network, the data packet comprising an Internet Protocol packet (Inoue: col. 9, lines 35-38 and col. 10, lines 6-16).

15. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (USPN 6,515,974) in view of Leung (USPN 6,195,705).

16. Regarding claim 4, Inoue discloses a method of communications between first and second wireless networks, comprising: receiving data containing a private network address of a first node in the first wireless network (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16); translating the private network address to a public network address (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16); and sending data containing the public network address translated from the private network address to a second node in the second wireless network (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16).

Inoue does not expressly disclose that receiving data comprises receiving data containing a General Packet Radio Service Tunneling Protocol data unit. Leung teaches, wireless

Art Unit: 2665

communication system, that the GPRS Tunneling Protocol (GTP) is well-known in the art.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to receive data containing a General Packet Radio Service Tunneling Protocol data unit since the GTP protocol is a well-known protocol.

17. Claims 5, 6, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (USPN 6,515,974) in view of Chuah (USPN 6,839,339).

18. Regarding claims 5 and 25, Inoue discloses a method of communications between first and second wireless networks, comprising: receiving data containing a private network address of a first node in the first wireless network (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16); translating the private network address to a public network address (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16); and sending data containing the public network address translated from the private network address to a second node in the second wireless network (Figs. 2 and 3 and col. 9, line 35-col. 10, line 16).

Inoue does not expressly disclose that receiving data comprises receiving data from a Serving General packet radio service Support Node in the first wireless network, the first node comprising the Gateway General packet radio service Support Node. Chuah teaches, in a wireless communication system, that SGSNs and GGSNs are a well-known component of a core network used to communicate information between a radio network and a backbone network (Fig. 2 and col. 2, lines 45-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to receive data from a SGSN by a GGSN since SGSNs and GGSNs are a well-known component of core network of a wireless network.

Art Unit: 2665

19. Regarding claim 6, Inoue in view of Chuah suggests that sending data comprises sending data to a Gateway General packet radio service Support Node, the second node comprising the Gateway General packet radio service Support Node (Inoue: Fig. 3 and Chuah: Fig. 2) where each radio network in Inoue will have a GGSN, as seen in Chauh, such that transmission from one node on one network to a second node on a second network will result in the packet traveling through the SGSN of the one network and the GGSN of the second network.

20. Claims 13-16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (USPN 6,515,974) in view of Rao (USPN 6,535,511) as applied to claims 10 and 18 above, and further in view of Chuah (USPN 6,839,339).

21. Regarding claims 13 and 23, Inoue in view of Rao does not expressly disclose that the received packet contains a General Packet Radio Service Tunneling Protocol (GTP) data unit in the payload portion of the data packet. Chuah teaches, in a wireless communication system, that it is well known to have a packet contain a GTP data unit (Fig. 1) in order to permit communication between RNCs, SGSNs, and GGSNs (Fig. 7). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have the received packet contain a GTP data unit in the payload portion of the data packet since this is a well-known way to communicate between RNCs, SGSNs, and GGSNs.

22. Regarding claim 14, Inoue in view of Rao does not expressly disclose receiving the packet from a Serving General packet radio service Support Node (SGSN) in the first wireless network, the first node comprising the General Packet Radio Service support node (GGSN). Chuah teaches, in a wireless communication system, that SGSNs and GGSNs are a well-known component of a core network used to communicate information between a radio network and a

Art Unit: 2665

backbone network (Fig. 2 and col. 2, lines 45-57). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to receive data from a SGSN by a GGSN since SGSNs and GGSNs are a well-known component of core network of a wireless network.

23. Regarding claim 15, Inoue in view of Rao in further view of Chuah suggests sending the packet to a GGSN in a second wireless network (Inoue: Fig. 3 and Chuah: Fig. 2) where each radio network in Inoue will have a GGSN, as seen in Chauh, such that transmission from one node on one network to a second node on a second network will result in the packet traveling from the SGSN to the GGSN of the one network and from the GGSN of the one network to the GGSN of the second network.

24. Regarding claim 16, Inoue in view of Rao in further view of Chuah suggests receiving the packet from the SGSN associated with a first public land mobile network (PLMN) and sending the packet to the GGSN associated with a second (PLMN) (Inoue: Fig. 3 and Chuah: Fig. 2) where each radio network in Inoue will have a GGSN, as seen in Chauh, such that transmission from one node on one network to a second node on a second network will result in the packet traveling from the SGSN to the GGSN of the one network and from the GGSN of the one network to the GGSN of the second network

25. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inoue et al. (USPN 6,515,974) in view of Chuah (USPN 6,839,339) as applied to claim 25 above, and further in view of Rao (USPN 6,535,511).

26. Regarding claim 26, Inoue in view of Chuah does not expressly disclose that performing the one-to-one translation comprises performing a translation of the private network address contained in a payload section of the packet to the public network address. Rao teaches, in a

Art Unit: 2665

packet communication system using NAT, that “some applications embed addressing information in their message payload data” in order to “initialize or set up a communication session with another application” where “[t]his embedded addressing information is also to be translated when the packet is crossing a boundary” (col. 1, lines 45-48 and col. 4, lines 1-6). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to perform a translation of the private network address contained in a payload section of the packet to the public network address in order to permit communication between applications existing in disparate addressing systems.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Daniel J. Ryman

Application/Control Number: 09/775,238

Page 10

Art Unit: 2665

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Art Unit 2665


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